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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,407	01/31/2000	Keith Stivers	OSI-2300/2310	4823

7590 07/02/2003
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EXAMINER

WHITE, CARMEN D

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 07/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/495,407

Applicant(s)

STIVERS ET AL.

Examiner

Carmen D. White

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-83 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-83 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-9, 69-73 and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Chang*** et al (5,342,054).

Chang teaches the limitations of the claims as discussed in the initial office action (paper #9, 10/4/02), which is incorporated herein by reference. Chang further teaches the newly added features of a golf ball impact location for receiving a golf ball (Fig. 1, #15, #13) and the first and second array positioned such that a golf club swung in preparation for contact with a golf ball at the impact location will have a swing plane in angular relation to the first and second arrays (Fig. 1, #15, #16, #22 and #20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 10, 74 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Chang*** et al (5,342,054).

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Chang teaches the limitations of the claims as discussed in the initial office action (paper #9, 10/4/02), which is incorporated herein by reference.

Claims 11-68, 75 and 77-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chang** et al (5,342,054) in view of **Sullivan** et al (4,158,853).

Chang and Sullivan teach the limitations of the claims as discussed in the initial office action (paper #9, 10/4/02), which is incorporated herein by reference.

Response to Applicant's Remarks

Regarding claims 1-33, Applicant argues that Chang lacks teaching the feature of *calculating total flight parameters using dynamic parameters determined using two or more images of a golf ball*. The examiner disagrees. Chang clearly teaches the capture of images {snapshots} of a golf ball after impact (col. 2, lines 22-25 and col. 3, lines 30-47) and determining flight parameters {ball speed, ball angle, etc.} (col. 8, lines 36-49).

Regarding claims 3 and 10, Applicant argues that Chang does not *use signals indicative of a temporal profile of which sensors the golf head passed over during the swing*. However, Applicant is arguing language that is different from the claim language. Claim 3 recites: *The apparatus of any of claims 1 or 2, the processor further for using the signals indicative of the temporal profile to determine a swing path of the club head as the club head moved between the first and second arrays during the swing*. Chang clearly teaches this feature of using the timing {temporal profile} to determine a swing path and swing data of the club head as it is moved between the sensor arrays {#22 and #20} (see col. 7, lines 34-67 through col. 8, lines 1-15).

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Regarding claims 34-59, Applicant argues that Chang lacks teaching any marking on the golf ball and the determination of dynamic parameters based in part on a diameter of a golf ball image. Applicant goes on to argue that Sullivan does not capture the image of a ball and doesn't teach this feature either. Applicant is arguing the references singly. Chang and Sullivan are combined. Sullivan is cited for teaching the features of markings on the golf ball and determining the dynamic parameters based on dimensions of the golf ball {diameter being interpreted as a dimension of the golf ball} (see Sullivan col. 3, lines 32-45). Also, Sullivan does disclose the capture of snapshot pictures of a golf ball after launch of the ball (col. 3, lines 16-22).

Regarding claims 60-68, Applicant argues that neither Chang nor Sullivan teaches a processor that compares three-dimensional velocity. The examiner disagrees. Chang teaches the determination of the speed of the ball from the ball images. However, Chang is silent on the disclosure of the determination of 3-D velocity. Sullivan is cited in combination with Chang for teaching this feature (see Sullivan- col. 3, lines 32-45).

Regarding claims 69-73, Applicant argues that the feature of capturing two or more images of a ball when it is determined that it is within view of the camera is not taught by Chang or Sullivan. The examiner disagrees. Chang teaches this feature (Fig. 9; col. 2, lines 16-31).

Regarding claims 74-83, Applicant argues that neither Chang nor Sullivan teaches a processor which calculates the transfer efficiency {interpreted as the club swing statistical data} of the club head using club speed calculated from spaced apart

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sensors and dynamic parameters from the two or more images of the ball. The examiner disagrees. Chang teaches this feature (Chang- col. 2, lines 42-50).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

USPTO Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carmen D. White whose telephone number is 703-308-5275. The examiner can normally be reached on Monday through Friday, 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7768 for unofficial communications and 703-305-3579 for official communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1078.


cdw


JESSICA HARRISON
PRIMARY EXAMINER